

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/23160

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G 06K 9/36 and 9/46
US CL : 382/250

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
IEEE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,172,227 A (TSAI et al.) 15 December 1992 (15.12.1992), fig. 2 element 35, col. 3 lines 50-55 and 63-67, col. 4 lines 4-10, col. 6 lines 17-40 and 55-67, col. 7 lines 22-60, col. 8 lines 1-19, col. 9 lines 11-67, and col. 10 lines 13-67.	1-30
A	US 5,572,236 A (FEIG et al.) 05 Nonember 1996 (05.11.1996). abstract, col. 3 lines 30-37 and 51-58, col. 4 lines 37-42, col. 5 lines 1-18, and col. 6 lines 6-30.	1-30
A	US 6,154,493 A (ACHARYA et al.) 28 November 2000 (28.11.2000) col. 3 lines 14-21 and 60-67, col. 4 lines 25-36,40-43, and 54-62, and col. 5 lines 22-36.	1-30
A	US 6,256,414 B1 (MANCUSO et al.) 03 July 2001 (03.07.2001), col.3 lines 1-5, 45-55, and 66-67, col. 4 lines 1-2, col. 5 lines 15-22 and 53-60	1-30

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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document member of the same patent family

Date of the actual completion of the international search

04 December 2003 (04.12.2003)

Date of mailing of the international search report

09 JAN 2004

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Continuation of B. FIELDS SEARCHED Item 1:

382/232,248,250

348/395.1,403.1,4,04.1,405.1,406.1,407.1,408.1

358/426.01-426.16